

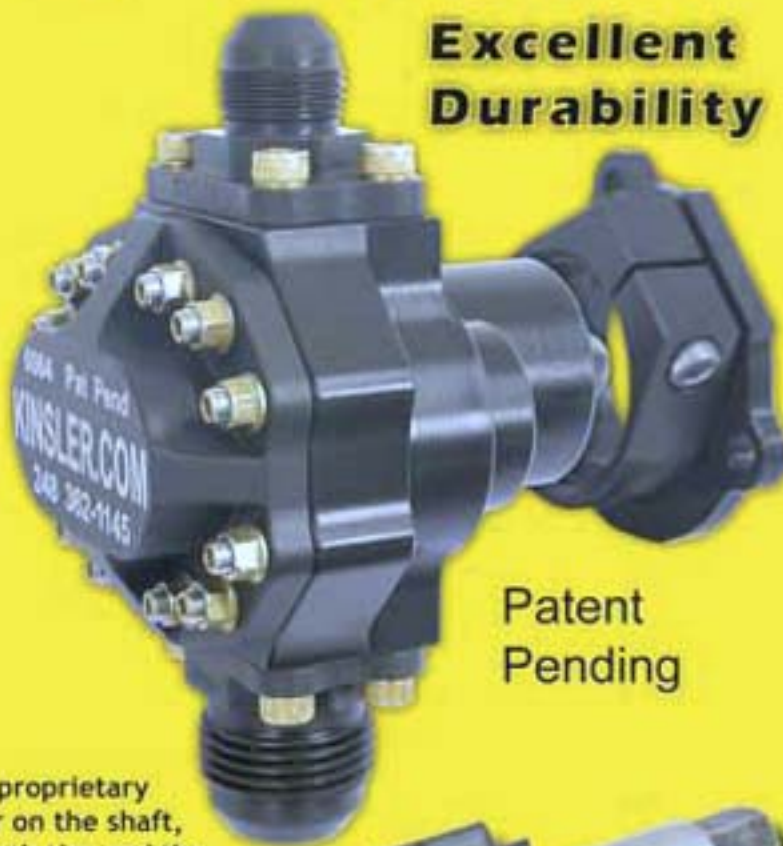
NEW

TOUGH[®]

PUMP



**Excellent
Durability**



**Patent
Pending**

TOUGH[®] BECAUSE:

One Piece Gear-Shaft

High alloy steel, case hardened, precision ground, then proprietary coated. Does not allow any radial movement of the gear on the shaft, thus maintaining correct clearance between the gear teeth tips and the housing. A two piece gear and shaft introduces more tolerance, which can allow the tips to scrape the gear cavity walls.

Can ingest dirt and spit it out that would fail any other pump.

Rock Solid Housing

Evolved through housing deflection vs pressure tests. This final design is the strongest in the industry, combined with twelve 10-32 studs to super secure the extra rigid cover. MIL-Spec hard coated to +/- .0001" tolerance for consistent flow over a very long life. Good to 400 PSI; higher available.

Steady Flow at EXTREME RPM

The inlet port comes straight into the gears rather than making a 90° turn like most pumps. This combined with special internal design features to feed the fuel to the gears gives EXCELLENT top-end performance.... up to 7,000 pump RPM (14,000 engine RPM) without cavitation. Our larger diameter roller bearings are rated at higher load (output pressure) and 2,000 more pump RPM than those of other pumps.

Pressure Balance Plate System

Our gear side plates are high alloy steel, heat treated very hard, ground to a 6 micro-inch finish, with end-to-end flatness of .0001". These are coated with a harder-than-carbide composite, then lapped to a 2 micro-inch mirror finish. This coating is so smooth that the torque required to drive the pump is significantly reduced. One plate is moveable. It has pump outlet pressure fed under it to keep it in constant contact with the gear faces, which gives minimum pump output flow drop vs pressure, and compensates for housing expansion due to temperature, and wear. For excellent priming during engine cranking, two coil springs keep the plate in contact with the gear faces.



ONE PIECE GEAR-SHAFT

© 2009

Pump is not reversible
in the field



Patent
Pending

Inlet and outlet bolt-on-fittings allow a larger diameter inlet port for better flow and keep the housing strong because it isn't tapped for a large fitting thread.

Pump length and diameter, mounting nose diameter, and pump mounting bracket are industry standard. Will bolt on where any Hilborn, Waterman, DSR, or Enderle pump does.



To prevent pressure from reaching the shaft seal, a static brass sleeve around the drive shaft is sealed to the housing and to the moveable plate by o-rings. This reduces the possibility of a seal leak and reduces friction on the drive shaft, because pressure is not forcing the seal lip to grip down onto the shaft...



Six station durability test, and break-in bench

Individual fittings:

6AN, 8AN, 10AN, 12AN

Outlet manifold fittings:

6AN, 8AN, 6AN (three port)

6AN, 6AN, 8AN, 6AN (four port)

The 8AN can be reduced to 6AN



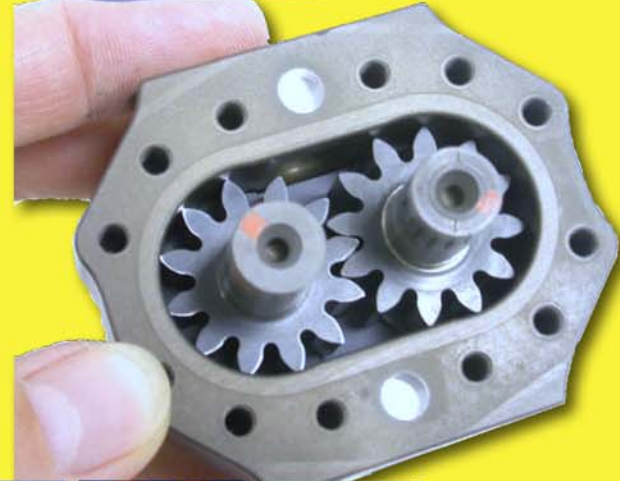
3AN pressure tap



gives longer seal life and less drive torque. The seal cavity is vented back to the inlet side of the pump to further insure that there is no pressure on the seal. A snap ring positively locates the seal.

Each pump is flow tested, run-in for two hours, then reflowtested before shipping.

Mirror Smooth Finish



© 2009



Tel: 248-362-1145

Fax: 248-362-1032

See Our New Web Site
kinsler.com

Free Handbook/Catalog at **kinsler.com**

Manufacturing, Sales, & Service. Constant flow,
Electronic, and Lucas mechanical fuel injection.

Kinsler Fuel Injection, Inc.

1834 Thunderbird Street
Troy, MI 48084 USA

Kinsler Fuel Injection



2009 DEALER PRICING

	PUMP SIZE	
	300, 400, 450, 500	200, 700
BASE PUMP ... No inlet or outlet flange fittings	888.80	921.30
Pump with inlet & outlet flange fittings.... Specify sizes from list below	931.10	963.60
Pump with 3-Port Manifold Outlet with fittings, and inlet flange fitting.... specify size from list below	960.00	992.50
Pump with 4-Port Manifold Outlet with fittings, and inlet flange fitting.... specify size from list below	978.10	1,010.60
FITTINGS, IF PURCHASED OUTRIGHT :		
	Part #	
3-Port Manifold: 8AN female port in center with one 6AN female port on each side. Has 3AN pressure port, including port plug	TP000130	65.40
4-Port Manifold: 8AN female port, with two 6AN female ports on one side, one port on other side. Has 3AN pressure port, including port plug	TP000140	73.25
12AN male flare flange fitting with o-ring	TP000112	28.25
10AN male flare flange fitting with o-ring	TP000110	27.50
8AN male flare flange fitting with o-ring	TP000108	26.75
6AN male flare flange fitting with o-ring	TP000106	24.65
Flange, pump mounting, removable pinch clamp, 3-bolt	TP000013	58.60

NOTES

Regular rotation: driven off of front of camshaft looking at the open end of the female drive hex, it rotates clockwise.

Looking at the end of the pump hex, the pump rotates counter-clockwise

Reverse rotation: driven off of rear of camshaft, or belt driven.... looking at the open end for the female drive hex, it rotates counter-clockwise.

Looking at the end of the pump hex, the pump rotates clockwise

Ph: 248-362-1145

Fax: 248-362-1032

www.kinsler.com